

Listing of the Claims

1. (currently amended) A method of treating Celiac Sprue and/or dermatitis herpetiformis, the method comprising:

administering to a patient an effective dose of a tTGase inhibitor wherein said tTGase inhibitor is or comprises a dihydroisoxazole moiety;

wherein said tTGase inhibitor attenuates gluten toxicity in said patient.

2. (canceled)

3. (original) The method of Claim 1, wherein said tTGase inhibitor is administered with a glutenase.

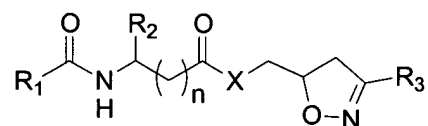
4. (original) The method according to Claim 1, wherein said tTGase inhibitor is administered orally.

5. (original) The method according to Claim 1, wherein said tTGase inhibitor is contained in a formulation that comprises an enteric coating.

6-10 (canceled)

11. (currently amended) ~~The method according to Claim 1,~~ A method of treating Celiac Sprue, the method comprising:

administering to a patient an effective dose of a tTGase inhibitor, wherein said tTGase inhibitor has the formula:



wherein R₁ and R₂ are independently selected from H, alkyl, alkenyl, cycloalkyl, aryl, heteroalkyl, heteroaryl, alkoxy, alkylthio, arakyl, aralkenyl, halo, haloalkyl, haloalkoxy, heterocyclyl, and heterocyclylalkyl groups, an amino acid, a peptide, a peptidomimetic, or a peptidic protecting group; wherein R₂ can additionally be selected from the group consisting of (SEQ ID NO:1) LPYPQPQLPY, (SEQ ID NO:2) LPFPQPQLPF-NH₂, (SEQ ID NO:3) LPYPQPQLP, (SEQ ID NO:4) LPYPQPQLPYQPQPF, LP-X₂₋₁₅, where X₂₋₁₅ is a peptide consisting of any 2-15 amino acid residues followed by a C-terminal proline; R₃ is selected from

F, I, Cl, and Br; n is from 0 to 10; and X is selected from the group consisting of O and NH₂,
wherein said tTGase inhibitor attenuates gluten toxicity in said patient.

12. (previously presented) The method of Claim 11, wherein R₁ is selected from the group consisting of BnO, Me, Cbz, Fmoc, Boc, PQP, Ac-PQP, (SEQ ID NO:5) PQPQLPYPQP, (SEQ ID NO:6) Ac-PQPQLPFPQP, (SEQ ID NO:7) QLQPFPPQP, (SEQ ID NO:8) LQLQPFPPQLPYPQP, X₂₋₁₅-P, where X₂₋₁₅ is a peptide consisting of any 2-15 amino acid residues followed by a N-terminal proline.

13. (original) The method of Claim 11, wherein R₂ is selected from the group consisting of (S)-Bn, (S)-CO₂Me, (S)-Me, (R)-Bn, (S)-CH₂CONHBn, (S)-(1*H*-indol-yl)-methyl, (S)-(4-hydroxyphenyl)-methyl, OMe, OtBu, Gly, Gly-NH₂, LPY, LPF-NH₂.

14. (original) The method according to Claim 11, wherein said tTGase inhibitor is selected from the group consisting of:

{(S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-2-phenyl-ethyl}-carbamic acid benzyl ester; (S)-2-Benzylloxycarbonylamino-4-[(3-bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-butyric acid methyl ester; (S)-2-Benzylloxycarbonylamino-*N*-(3-bromo-4,5-dihydro-isoxazol-5-ylmethyl)-succinamic acid methyl ester; (S)-2-Benzylloxycarbonylamino-3-phenylpropionic acid 3-bromo-4,5-dihydro-isoxazol-5-ylmethyl ester; {(S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-ethyl}-carbamic acid benzyl ester; (S)-2-Acetylamino-*N*-(3-bromo-4,5-dihydro-isoxazol-5-ylmethyl)-3-phenyl-propionamide; {(R)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-2-phenyl-ethyl}-carbamic acid benzyl ester; {(S)-2-Benzylcarbamoyl-1-[(3-bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-ethyl}-carbamic acid benzyl ester; [(S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-2-(1*H*-indol-3-yl)-ethyl}-carbamic acid benzyl ester; {(S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-methyl-carbamoyl]-2-phenyl-ethyl}-carbamic acid benzyl ester; and [(S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-methyl-carbamoyl]-2-(4-hydroxy-phenyl)-ethyl}-carbamic acid benzyl ester.

15 – 18 (canceled)

Claims 1-18 were pending. Claims 1 and 11 are amended. Claims 2, 6-10 and 15-18 are canceled.

The Examiner has required election of one of the following groups of claims:

Group I: Claims 1-5, and 11-14, drawn to a method of treating Celiac Sprue and/or dermatitis herpetiformis comprising administering ANY tTGase inhibitor; classified in class 424, subclass 1-69.

Group II: Claims 6-10, and 15-18, drawn to a formulation or compound comprising ANY tTGase inhibitor; classified in class 514, subclass 2.

Applicants hereby elect to prosecute the claims of Group 1, claims 1, 3-5, and 11-14.

The Examiner has required that Applicants elect a compound of tTGase inhibitor for examination. Applicants herein elect the compound: (S)-1-[(3-Bromo-4,5-dihydro-isoxazol-5-ylmethyl)-carbamoyl]-2-phenyl-ethyl}-carbamic acid benzyl ester, with traverse. Applicants respectfully submit that the isoxazole moiety, as set forth in Claim 1 and as shown in the formula of Claim 11, provides for a common structural feature in the genus of compounds for use in the methods of the invention.

Applicants further submit that the formula set forth in Claim 11, which defines an isoxazole moiety, provides for a defined set of compounds having a common core structure.

In the event that the Examiner does not extend a search to the genus set forth in Claim 11, Applicants respectfully submit that the Markush group set forth in Claim 14 provides for a closely related set of compounds, for which activity data is provided in Table 1 of the present application. The genus of compounds set forth in Claim 14 covers a defined group, in which the members share the core feature of an isoxazole moiety, and which may be properly considered as a group for use in the methods of the invention.

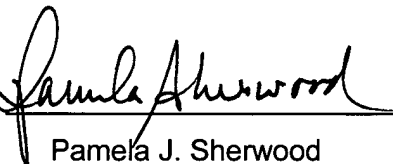
The Examiner has requested a species election for prosecution on the merits. Applicants elect the treatment of Celiac Sprue. Claims 1 and 3-5 are generic, Claims 11-14 recite the elected species.

Applicants expressly reserve the right under 35 USC §121 to file a divisional application directed to the non-elected subject matter or any subject matter disclosed in this application during the pendency of this application.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815, order number STAN-258CIP.

Respectfully submitted,
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